

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the patent application of Benninger et al.

Serial No. **10/560,603**

Filing date: December 13, 2005

Title:           method and means for producing a magnetically induced design in  
                  a coating containing magnetic particles

Group Art Unit **1794** -- Examiner **Higgins**

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Commissioner for Patents

Washington, D.C. 20231

**DECLARATION OF Nathalie Benninger-Junod (37 C.F.R. 1.132)**

I, Nathalie Benninger-Junod, a citizen of the Swiss Confederation, residing in La-Chaux-de Fonds, Switzerland, declare that:

1.     I have been employed by SICPA S.A. as a laboratory Technician since August 03, 1999. I am co-inventor of the Patent Application No. 10/560,603 (the '603 application").
2.     I have prepared a magnetic orientation tool according to the '603 application by engraving the letter "a" (engraving depth of 0,3 mm)) into the surface of a rubber-bonded hard ferrite magnet of a thickness of 4 mm.
3.     Moreover, in accordance with the teaching of Graves (US, 3,676,273) I have prepared an engraved soft iron plate of a thickness of 0,7 mm with the letter "a" engraved into the surface of said soft iron plate (engraving depth of 0,3 mm). Said engraved soft iron plate was laid upon a plate of rubber-bonded hard ferrite mag-

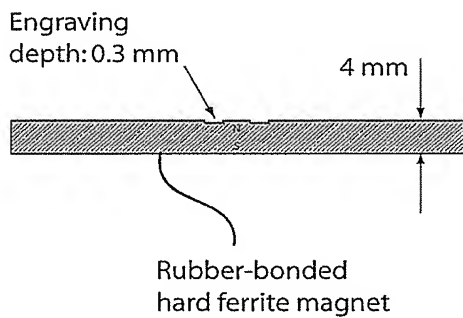
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net of a thickness of 4 mm. The details of both tools are exemplified in the following figure:

#### Magnetic orientation tool used

##### a) Present invention

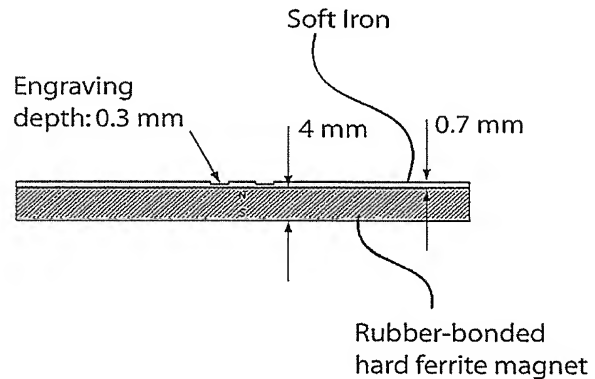
engraved permanent magnetic plate



a)

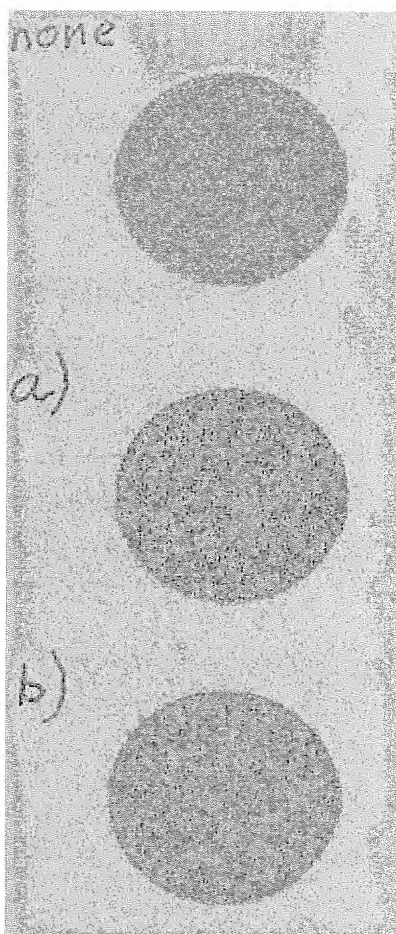
##### b) Prior art

engraved soft iron plate on permanent magnet



b)

4. I have evaluated the magnetic field generated by tool a) according to the present invention and tool b) according to the prior art with a conventional magnetic field detecting foil, and with a wet ink film containing "green-to-blue" optically variable magnetic pigment flakes, and which was cured after exposure to the magnetic field. The results of the latter are shown in the figures below. "None" shows the appearance of the ink in the absence of any tool. The tool according to the present invention (sample a)) provides sharp magnetic field edges – the letter "a" is clearly visible. The tool according to the prior art (sample b)) is not capable of generating sharp magnetic field edges which allows the visualization of the letter "a":



5. From the above experiment, there can be gathered a clear and unexpected difference between the tool of the present invention and the tool of the prior art. The tool according to the present invention is capable of generating sharp and visible indicia in a wet coating composition, with a sharpness not obtainable by the tool of the prior art.

I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that the making of willful false statements or the like is punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

June 12, 2009

  
(signature)

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